

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today  
(1) was not written for publication in a law journal and  
(2) is not binding precedent of the Board.

Paper No. 31

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte MICHAEL MONKOWSKI, SEIKI OGURA,  
NIVO ROVEDO, and JOSEPH F. SHEPARD

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Appeal No. 96-0285  
Application 07/900,528<sup>1</sup>

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ON BRIEF

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Before JERRY SMITH, BARRETT, and DIXON Administrative Patent  
Judges.

JERRY SMITH Administrative Patent Judge.

DECISION ON APPEAL

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<sup>1</sup> Application for patent filed June 17, 1992. According  
to appellants, this application is a continuation of  
07/643,907, filed January 18, 1991, now abandoned.

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This is a decision on the appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1-19, which constitute all the claims in the application.

The invention pertains to a method for manufacturing integrated circuit devices including elements formed according to both CMOS technologies and self-aligned double poly bipolar technologies to create BiCMOS devices.

Representative claim 12 is reproduced as follows:

12. A process for manufacturing an integrated circuit device including circuit elements formed according to both CMOS and bipolar technologies including the steps of

simultaneously forming portions of circuit elements according to both said CMOS and said bipolar technologies, and

completing said circuit elements according to said bipolar technology including the further steps of

forming an aperture in a layer, said layer forming an impurity diffusion source for an extrinsic base of at least one circuit element according to said bipolar technology,

forming an intrinsic base of said at least one circuit element within said aperture,

forming a spacer on sidewalls of said aperture and forming an emitter of said at least one circuit element deposited within said spacer on said sidewalls of said aperture.

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The examiner has relied on the following references:

Lechaton et al. (Lechaton)                      4,960,726                      Oct. 2, 1990

Ning et al. (Ning), "Self-Aligned Bipolar Transistors for High-Performance and Low-Power-Delay VLSI," IEEE Transactions On Electron Devices, Vol. ED-28, No. 9, Sept. 1981, pages 1010-1013.

Claims 1-19 were finally rejected under 35 U.S.C. § 112, second paragraph, for failing to particularly point out and distinctly claim the invention. The examiner's answer indicated that only claims 1, 2, 10 and 12 were still rejected under the second paragraph of 35 U.S.C. § 112, however, the answer also noted an unclear recitation in independent claim 13. We will assume that claims 1-19 remain rejected under the second paragraph of Section 112. Claim 12 was also finally rejected under 35 U.S.C. § 102(b) as being anticipated by the disclosure of Lechaton. After the filing of the appeal brief, the examiner withdrew this rejection of claim 12 and replaced it with a rejection under 35 U.S.C. § 103 as being

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unpatentable over the teachings of Lechaton in view of Ning. In response to the filing of a first reply brief, the examiner withdrew the rejection of claim 12 under Section 103 and reinserted the rejection under Section 102(b) based on Lechaton. Claim 12 thus stands rejected under 35 U.S.C. § 102(b) as being anticipated by the disclosure of Lechaton. The examiner's answer also contained an additional new rejection of claim 12 under 35 U.S.C. § 112, first paragraph, as being based on an inadequate written description of the invention. In response to the filing of the first reply brief, this rejection was withdrawn [supplemental answer].

Rather than repeat the arguments of appellants or the examiner, we make reference to the briefs and the answers for the respective details thereof.

#### OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the examiner, the arguments in support of the rejections and the evidence of anticipation relied upon by the examiner as support for the prior art rejection. We have, likewise, reviewed and taken into

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consideration, in reaching our decision, the appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answers.

It is our view, after consideration of the record before us, that claims 1-19 particularly point out the invention in a manner which complies with 35 U.S.C. § 112. We are also of the

view that the disclosure of Lechaton does not fully meet the invention as set forth in claim 12. Accordingly, we reverse.

We consider first the rejection of claims 1-19 under the second paragraph of 35 U.S.C. § 112. The examiner's rejection states the following:

In claims 1-2, 10, and 12, the scope of "formed according to both CMOS and self-aligned double poly bipolar technologies" is not understood. Thus the claims are indefinite.

The claims fail to set forth the specific process for forming the CMOS and self-aligned double poly bipolar transistor technologies.

The scope of the "technologies" encompassed by the present claims is

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unclear, hence the claims are  
indefinite in scope.

In claim 1, step a, claim 2, step a,  
claim 10, step a, claim 12, step 1,  
and claim 13, step 4, the scope of  
"portions" or "portion" is unclear and  
not understood.

Which portions?

In claims 1, 2, and 10, the scope of  
"partially" is unclear and not  
understood.

How much is partially?

In claim 2, the scope of "further  
portions" is unclear and not  
understood. Which portions are  
further portions?

Appellants make several arguments that the criticized  
terms are perfectly clear to the artisan when read in light of  
the specification, and the examiner's objections relate to the  
breadth of the claims rather than to the indefiniteness of the  
claims [brief, pages 7-11, first reply brief, pages 3-5].

The general rule is that a claim must set out and  
circumscribe a particular area with a reasonable degree of  
precision and particularity when read in light of the  
disclosure as it would be by the artisan. In re Moore, 439  
F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). Acceptability

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of the claim language depends on whether one of ordinary skill in the art would understand what is claimed in light of the specification. Seattle Box Co., v. Industrial Crating & Packing, Inc., 731 F.2d 818, 826, 221 USPQ 568, 574 (Fed. Cir. 1984).

The examiner's "Response to argument" section of the answer reveals that what the examiner deems to be indefinite is merely a matter of claim breadth. For example, the examiner states that "since there are many different CMOS and self-aligned double bipolar transistor processes, it is not clear which process are [sic] being claimed" [answer, page 4]. Appellants correctly point out that the specific one of the different CMOS and self-aligned double bipolar transistor processes is irrelevant to their claimed invention. The independent claims broadly include all of them. Likewise, the examiner states that "the recited process steps are not specific enough to differentiate the claimed bipolar technologies" [id.]. Once again, the claim does not have to differentiate which of the bipolar technologies is included within the scope of the claim because all such technologies are to be included. It must be remembered that breadth of the

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claims is not equated with indefiniteness of the claims. In re Miller, 441 F.2d 689, 693, 169 USPQ 597, 600 (CCPA 1971). The examiner's objections under 35 U.S.C. § 112 improperly address the breadth of the claims rather than the indefiniteness of the claims.

In summary, we agree with appellants that the artisan having considered the specification of this application would have no difficulty ascertaining the scope of the invention recited in claim 1-19. Therefore, the rejection of claims 1-19 under the second paragraph of 35 U.S.C. § 112 is not sustained.

We now consider the rejection of claim 12 under 35 U.S.C. § 102(b) as anticipated by the disclosure of Lechaton<sup>2</sup>.

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<sup>2</sup> We note that Lechaton does not qualify as prior art under 35 U.S.C. § 102(b). Lechaton does qualify as prior art, however, under 35 U.S.C. §§ 102(a) or (e) so that we have considered this rejection as if made under either of these



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Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

The examiner purports to read claim 12 on the disclosure of Lechaton [supplemental answer, page 4]. Appellants' argument basically concerns only the last step of claim 12 which states "forming an emitter of said at least one circuit element deposited within said spacer on said sidewalls of said aperture." According to appellants, the emitter 82 of Lechaton is not obtained by deposition, but rather, is obtained by diffusion of dopants from polysilicon regions 58B and 72. Appellants argue that forming a circuit component by

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appropriate sections. Appellants have not contested the section of the statute relied on in making the rejection.

diffusion is not the same as forming the component by deposition [second reply brief].

The examiner clearly reads the claimed emitter of appellants' claim 12 on emitter 82 of Lechaton [answer, page 4]. We agree with appellants that the emitter 82 of Lechaton is formed by diffusing dopants from the emitter contact into the emitter region. Thus, the emitter itself in Lechaton is the region 82 which is formed by diffusion. The deposited polysilicon emitter contact layer does not form the emitter of the transistor.

We agree with appellants that the last step of claim 12 requires that the emitter itself be formed by the step of deposition. The claim cannot be reasonably construed to permit the emitter contact or the circuit element itself to be deposited. Thus, the claim must be construed as requiring the formation of the emitter region by deposition. Since Lechaton forms the emitter region by diffusion rather than deposition, we do not sustain the rejection of claim 12 as anticipated by the disclosure of Lechaton.

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In summary, we have not sustained either of the examiner's pending rejections against the claims. Therefore, the decision of the examiner rejecting claims 1-19 is reversed.

REVERSED

	)	
Jerry Smith	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
Lee. E. Barrett	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
Joseph L. Dixon	)	
Administrative Patent Judge	)	

JS/dm

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